

**CLEAN COPY OF CLAIMS**

1. A method for enhancing the adjuvant effect of IL-12 comprising: co-administering to a mammalian patient said IL-12, a vaccine antigen, and an effective amount of at least one agent selected from the group consisting of a nitric oxide inhibiting agent and a nitric oxide neutralizing agent.
2. The method according to claim 1 wherein said agent is an agent that inhibits or reduces the synthesis of nitric oxide *in vivo*.
3. The method according to claim 1 wherein said agent is an agent that breaks down, absorbs, metabolizes or eliminates nitric oxide *in vivo*.
4. The method according to claim 1 wherein said co-administration comprises simultaneously administering said agent with said IL-12 and said antigen.
5. The method according to claim 1 wherein said co-administration comprises sequentially administering said agent, said IL-12 and said antigen, in any order.
6. The method according to claim 3 wherein said co-administration comprises administering said IL-12 before said agent.
7. The method according to claim 2 wherein said agent inhibiting nitric oxide generation is an inhibitor of nitric oxide synthase.
8. The method according to claim 7 wherein said agent is specific for inducible nitric oxide synthase.

9. The method according to claim 2 wherein said agent is selected from the group consisting of L- $N^G$  monomethyl arginine (L-NMMA), L- $N^G$  nitroarginine (L-NORAG), L- $N^G$  nitroarginine methylester (L-NAME), L- $N^G$  nitroarginine p-nitroanilide (L-NAPNA), L- $N^G$  aminoarginine (L-NAA), L- $N^G$  cyclopropylarginine, L- $N^G$  allylarginine, asymmetric L- $N^G N^G$  dimethylarginine (L-ADMA), L- $N^G$  iminoethyl ornithine (L-NIO), 7-nitro indazole (7-NI), 2,7 dinitro indazole, 3-bromo 7-nitro indazole, aminoguanidine, N,N'-diaminoguanidine, dimethylguanidine, diphenyleneiodonium, iodoniumdiphenyl, di-2-thienyliodonium, chlorpromazine, trifluoperazine, pimozide, clozapine, calmidazolium, 2,4 diamino-6-hydroxypyrimidine, methotrexate, N-acetyl-5-hydroxytryptamine, miconazole, ketoconazole, clotrimazole, imidazole, 1-, 2- and 4-phenylimidazole, methylene blue, NO, carbon monoxide, ebselen, phencyclidine, and antineoplastic agents (doxorubicin, aclarubicin).

10. The method according to claim 9 wherein said agent is L-NAME.

11. The method according to claim 9 wherein said agent is L-NMMA.

12. The method according to claim 3 wherein said agent is a nitric oxide scavenger.

13. The method according to claim 12 wherein said scavenger is selected from the group consisting of N-acetyl cysteine, pyrrolidine dithiocarbamate, and hemoglobin.

14. The method according to claim 1 wherein said vaccine antigen is a mammalian tumor cell antigen.

15. The method according to claim 1 wherein said vaccine antigen is a pathogenic antigen selected from the group consisting of bacterial antigens, viral antigens, and parasitic antigens.

40. An adjuvant composition comprising an effective adjuvanting amount of IL-12 and an effective amount of at least one agent selected from the group consisting of a nitric oxide inhibiting agent and a nitric oxide neutralizing agent, in a pharmaceutically acceptable carrier.

41. A vaccine composition comprising an effective adjuvanting amount of IL-12, an effective amount of at least one agent selected from the group consisting of a nitric oxide inhibiting agent and a nitric oxide neutralizing agent, and an effective protective amount of a vaccine antigen in a pharmaceutically acceptable carrier.

42. A method of preparing an adjuvant composition comprising combining in a pharmaceutically acceptable carrier an effective amount of a vaccine antigen, and an effective adjuvanting amount of IL-12 and an effective amount of at least one agent selected from the group consisting of a nitric oxide inhibiting agent and a nitric oxide neutralizing agent.